



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,605	11/29/2001	Harry V. Paul	87264.3020	2664
21834	7590	07/28/2006	EXAMINER	
BECK AND TYSVER P.L.L.C. 2900 THOMAS AVENUE SOUTH SUITE 100 MINNEAPOLIS, MN 55416			QURESHI, AFSAR M	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

58

Office Action Summary	Application No. 09/995,605	Applicant(s) PAUL ET AL.	
	Examiner Afsar M. Qureshi	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-36 is/are allowed.
- 6) ☒ Claim(s) 1-18, 20-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/19/02, 10/25/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is responsive to amendment received on 4/25/2006. Cancelled claim 19 and added new claims 21-36, as requested.

Response to Arguments

2. Applicant's arguments filed 4/25/2006 have been fully considered but they are not persuasive. The Applicant argued that the cited art fails to disclose "what happens inside the switch, also, the logic to terminate the connection is performed by the switch output, and is thus independent of the logic to establish the connection. The switch output release[s] the connection upon detection that the EOP indicator has been received at a the output port." The Examiner contends that although the claims are interpreted in light of the Specification, limitations from the Specifications are not read into the claims. See *In re Van Genus*, 988 F.2d USPQ2d 1057 (Fed. Cir. 1993). Also the claim is interpreted in its broadest sense. In this case Nelson discloses transmitting a frame and inherently has output ports to transmit a data externally. Nelson also discloses a EOft indicator causing the release of connection upon detection.

The Examiner contends that Nelson anticipates all the limitations of claims 1-18 and 20-24.

3. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

Art Unit: 2616

4. Claims 1-18, 20-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Nelson et al. (US 6,148,004).

Claims 1-10, 14 and 17. Nelson discloses a switch fabric utilized with fiber channel frames wherein frames are transmitted through the switch fabric (*claims 1, 5, 14*) (see figure 2A and 2B) with frame and sequence generation for each link controller (see col. 8, lines 44-53). Nelson further discloses releasing switch connection prior to sequence termination (see col. 5, lines 24-65 and col. 9, lines 26-50) (*claims 5*).

Nelson discloses End of Frame (EOF) (col. 7, lines 36-39), functionally same as EOP provided at the beginning and end of the frame (*claims 2, 3, 4, 9, 10*).

Nelson further discloses an indication of termination (triggering event) of an exchange field provided by link controller 22 (see col. 8, lines 44 through col. 9, lines 1-36) wherein FE 16 generates header information (setting a register bit) and an originator exchange identifier is re-changed to the inactive state thereof upon receipt of a last of the series of data frames (col. 2, lines 60-67) (*claims 6 and 7*).

Nelson discloses releasing the connection upon detection of the EOP indicator (see col. 4, lines 58-67).

Nelson discloses methods for establishing dynamic ESCON connections over **Fiber Channel** connection using series of data frames (col. 8, lines 46-67) (*claims 8 and 17*).

Claims 11, 20 - 24. The Description of the instant Application does not provide specific details that EOP indicator is a single bit except in claims 11 and 20. However, the

Art Unit: 2616

Examiner has not objected to the claims as being "lack of anticipation in the Specification, because it is inherent that EOP are special characters (and strings) to elements within a link which are single-bit, single –cycle signals, e.g., 'on' for one state and 'off' for the other state.

Figure 3 shows series of Fiber Channel data frames arrive and passed to selected link controllers based on the status of the frame (see col. 2, lines 46-59).

The switch disclosed by Nelson is a cross-point switch (see US 5,107,489, content of which are incorporated by Nelson). Nelson does not specifically disclose that the switch is a cross-bar switch (as in claim 24). However, Nelson discloses that the invention can be used by any system architecture and frame processing method (see col. 10, line 66 through col. 11, lines 1-23).

Claim 12. See rejection of claim 1 above.

Claim 13. Already discussed above (claims 1-10, 14).

Claims 15, 16 and 18. See rejection of claims 1-10 above.

Figure 3 shows the buffer descriptor format for the memory device wherein series of Fiber Channel data frames arrive and passed to selected link controllers based on the status of the frame (see col. 2, lines 46-59).

Allowable Subject Matter

5. Claims 25-36 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose a method for transmitting a frame

Art Unit: 2616

through a cell-based switch comprising the method step of "partitioning the frame payload among cells having the same capacity within a packet as cell payloads, at least one cell other than the last cell having a payload size less than the cell capacity", (claims 25 and 30).

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Abbas et al. (US 6,810,046)

YU (US 20010012288)

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2616

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M. Qureshi whose telephone number is (571) 272 3178.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


AFSAR QURESHI
PRIMARY EXAMINER
6/28/2006